CLAIMS

1. A shape memory alloy wire subjected to a cold drawing work, which comprises a shape memory alloy in a martensitic phase which assumes an austenitic phase or a martensitic phase through phase transformation temperatures, has a diameter of 60 μm or less, and has a reverse transformation termination temperature of at least 250°C.

2. The shape memory alloy wire according to claim 1, which has a cold drawing rate of at least 20%.

3. The shape memory alloy wire according to claim 1 or 2, wherein the shape memory alloy is a Ti-Ni alloy.

4. A composite material which comprises a fibrous material and a resin, wherein the fibrous material comprises the shape memory alloy wire according to any one of claims 1 to 3.

5. A composite material which comprises a fibrous material and a resin, wherein the fibrous material comprises the shape memory alloy wire according to any one of claims 1 to 3 and at least one fiber selected from a glass fiber and a carbon fiber.

6. The composite material according to claim 4 or 5, wherein the resin comprises a thermosetting resin or a thermoplastic resin.

7. The composite material according to claim 4 or 5, wherein the resin comprises a precured material of a thermosetting resin.

8. The composite material according to claim 4 or 5, wherein the resin comprises a thermoset product of a thermosetting resin.

9. The composite material according to any one of claims 4 to 8, wherein the thermosetting resin comprises an epoxy resin.

10. A composite material which comprises a cured resin comprising the shape memory alloy wire according to any one of claims 1 to 3, wherein the shape memory alloy wire is heated to a temperature of a reverse transformation termination temperature thereof or higher to generate a contractive force.

11. The composite material according to claim 10, which comprises at least one fiber selected from a glass fiber and a carbon fiber together with the shape memory alloy wire.

12. The composite material according to claim 10 or 11, wherein said heating of the shape memory alloy wire is carried out by application of electric current to the wire.

13. A process for producing a composite material, which comprises heat-curing a thermosetting resin or a precured material thereof comprising the shape memory alloy wire according to any one of claims 1 to 3 at a temperature which is a reverse transformation starting temperature of the shape memory alloy wire or higher and is lower than the reverse transformation termination temperature; and then heating at least a part of the shape memory alloy wire to a temperature of its reverse transformation final temperature or higher.

14. The process according to claim 13, wherein the thermosetting resin or the precured material thereof comprises at least one fiber selected from a glass fiber and a carbon fiber.

15. The process according to claim 13 or 14, wherein said heating of the shape memory alloy wire is carried out by application of electric current to the wire.